Emotion Suppression and Aggressive Behavior: Frustration Tolerance as a Mediator in Young Adults

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A r t i c l e   I n f o

A B S T R A C T

Objective: This study aimed to investigate the mediating role of frustration tolerance in the relationship between emotion suppression and aggressive behavior among young adults.

Methods and Materials: A descriptive correlational research design was employed with a sample of 400 young adults aged 18–30 from Georgia, selected based on the Morgan and Krejcie sample size table. Participants completed standardized self-report instruments: the Emotion Regulation Questionnaire (Suppression Subscale), the Frustration Discomfort Scale, and the Buss–Perry Aggression Questionnaire. Data were analyzed using SPSS-27 for descriptive and Pearson correlation analyses, and AMOS-21 for structural equation modeling (SEM). Assumptions for normality, linearity, and multicollinearity were confirmed prior to model testing.

Findings: Emotion suppression was significantly and negatively correlated with frustration tolerance ($r = -.43$, $p < .001$) and positively correlated with aggressive behavior ($r = .48$, $p < .001$). Frustration tolerance was also negatively correlated with aggressive behavior ($r = -.52$, $p < .001$). SEM results indicated good model fit ($\chi^2/df = 2.22$; CFI = 0.96; RMSEA = 0.056). Emotion suppression had a significant direct effect on aggression ($\beta = 0.29$, $p < .001$), as well as an indirect effect via frustration tolerance ($\beta = 0.21$, $p < .001$), confirming partial mediation. The total effect of emotion suppression on aggressive behavior was strong ($\beta = 0.50$, $p < .001$).

Conclusion: The findings suggest that frustration tolerance partially mediates the relationship between emotion suppression and aggressive behavior in young adults. Individuals who suppress their emotions tend to exhibit lower frustration tolerance, which increases their likelihood of aggressive responses. Interventions aimed at enhancing emotional expression and frustration management may reduce aggression in this population.

Keywords: *Emotion suppression; Frustration tolerance; Aggressive behavior.*

1. Introduction

Emotion suppression, a central construct in emotional regulation research, refers to the conscious inhibition of emotional expression in social or intrapersonal contexts. While often considered a short-term strategy for maintaining composure, chronic suppression has been linked to negative outcomes such as internalized distress and interpersonal dysfunction (Zeigler-Hill & Shackelford, 2020). Within the developmental context of young adulthood, where identity formation and autonomy are particularly salient, the habit of suppressing emotions may generate internal tensions that lack a healthy outlet, thereby increasing the risk for externalized behaviors like aggression. Notably, suppression prevents emotional processing and catharsis, resulting in the accumulation of unresolved tension which may erupt in the form of verbal or physical aggression under specific triggering conditions (DiBlasi et al., 2024).

Multiple studies have established a connection between suppression and aggression. For instance, individuals high in suppression reported greater likelihood of engaging in retaliatory behaviors (Zeigler-Hill & Shackelford, 2020). This effect appears particularly strong when individuals are unable to satisfy basic psychological needs, a situation frequently seen in environments characterized by negative parenting behaviors or authoritarian control (Kwon & Lee, 2025). Research demonstrated that the frustration of psychological needs caused by harsh parental styles directly predicted both emotion suppression and later aggression among school-aged children (Kwon & Lee, 2025). Such findings underscore the role of emotion suppression not merely as a standalone predictor, but as a psychological outcome shaped by broader developmental dynamics.

Frustration tolerance—the capacity to endure setbacks, blocked goals, or unmet needs without resorting to maladaptive reactions—has been proposed as a critical mediating variable between suppression and aggression. Young adults with low frustration tolerance are particularly susceptible to emotional outbursts when faced with challenges that threaten their sense of control or self-efficacy. Frustration arises when an individual's expectations and reality diverge sharply, often leading to a cascade of emotional dysregulation if coping mechanisms are insufficient (Ivanov & Perevozkina, 2022). In contexts where emotional suppression is habitual, the suppressed affect may amplify the psychological distress experienced during frustrating situations, lowering the individual's ability to respond adaptively.

Empirical findings support the notion that frustration intolerance functions as a precursor to aggression. Both internal (self-imposed) and external (environmentally-induced) frustration significantly influence levels of psychological self-defense, often manifesting in aggressive responses (Toxanbayeva et al., 2024). Students with learning disabilities and low frustration tolerance are more likely to exhibit classroom aggression as a form of coping with academic pressure (Nordman & Adcock, 2022). Frustration tolerance has also been linked to socio-cognitive development; adolescents with poor emotional insight and limited frustration tolerance often demonstrate higher rates of impulsivity and aggression, especially in social settings (Rodriguez, 2020).

Several theoretical frameworks underpin the link between frustration and aggression. The classical frustration–aggression hypothesis posits that aggression is an inevitable outcome when an individual's goal-directed behavior is blocked (Breuer et al., 2015). Although contemporary revisions acknowledge the role of mediating factors such as cognitive appraisal and emotion regulation, frustration remains a consistent precursor to aggression in experimental and real-world settings. For instance, frustration in the context of competitive gaming has been shown to lead to elevated levels of verbal and behavioral aggression (Breuer et al., 2015). Frustration-induced anger was also identified as a primary trigger for aggression in women diagnosed with Borderline Personality Disorder (Bertsch et al., 2021), suggesting that frustration can exacerbate vulnerabilities associated with emotional dysregulation.

The relevance of these dynamics in institutional contexts has also been examined. Suppression and low tolerance for frustration were critical in predicting aggressive outbursts within correctional environments (Batic, 2022). Reintegration programs aimed at improving emotional resilience and tolerance were shown to reduce aggression in incarcerated individuals (Popa, 2024). Moreover, research conducted in school and youth settings supports the link between emotional control mechanisms and behavioral outcomes. Older adolescents who frequently suppressed anger reported more physical confrontations and disciplinary issues than their peers (Sugian et al., 2021).

Aggression, as a behavioral outcome, is not homogeneous. It may include physical, verbal, reactive, and proactive forms, each influenced by emotional and situational contexts. Reactive aggression—characterized by impulsive, emotion-driven responses to perceived threats—was strongly linked to low friendship quality and emotional

regulation difficulties, while proactive aggression was more associated with deliberate goal-oriented behaviors (Ling et al., 2017). This distinction is critical in examining how emotional suppression and frustration tolerance interact to predict specific forms of aggression in young adults. Both prejudice and frustration contributed to adolescent aggression, with emotional factors playing a more dominant role in impulsive responses (Sriwahyuningsih et al., 2016).

Neurobiological and genetic factors also intersect with emotional suppression and frustration sensitivity. Junior high school students with specific polygenic profiles were more prone to aggression when parent–child relationships were strained and frustration was high (Zhang et al., 2023). These findings align with a growing body of literature suggesting that while emotional regulation and frustration tolerance are shaped by environment and experience, biological predispositions also play a contributing role.

The longitudinal consequences of aggressive behavior in young adults are profound. Early-life emotional suppression and poor frustration management are associated with long-term behavioral problems, relationship dysfunction, and reduced occupational success (Rijlaarsdam et al., 2015). Adolescents with low frustration tolerance not only show higher aggression but also display increased suicidal ideation, indicating that these emotional difficulties may manifest both externally and internally (Cornejo-Babida, 2020). Aggression among high school students is frequently underpinned by emotional suppression and unresolved frustration, particularly in competitive academic settings (Abdullah et al., 2020).

Given the literature's robust evidence, it is critical to consider frustration tolerance not merely as a background variable, but as a psychological mechanism that mediates the association between emotional suppression and aggressive behavior. The present study aims to fill the gap by empirically testing this mediational model in a large, diverse sample of young adults in Georgia.

2. Methods and Materials

2.1. Study Design and Participants

This research employed a descriptive correlational design to examine the relationships among emotion suppression, frustration tolerance, and aggressive behavior in young adults. The target population consisted of university students and young professionals aged 18 to 30 residing in Georgia. Based on the Morgan and Krejcie (1970) sample size determination table, a total of 400 participants were recruited

using stratified random sampling to ensure representation across gender, academic discipline, and employment status. Eligibility criteria included being within the designated age range, having no history of diagnosed psychiatric disorders, and providing informed consent for participation. The sample included both male and female participants from various ethnic and socio-economic backgrounds, ensuring diversity and generalizability of findings.

2.2. Measures

2.2.1. Aggressive Behavior

Aggressive behavior was assessed using the Buss–Perry Aggression Questionnaire (BPAQ) developed by Buss and Perry in 1992. The BPAQ is a widely used self-report instrument that evaluates individual differences in aggression across four subscales: Physical Aggression, Verbal Aggression, Anger, and Hostility. The scale consists of 29 items, rated on a 5-point Likert scale ranging from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me), with higher scores indicating higher levels of aggressive tendencies. The BPAQ has demonstrated excellent psychometric properties, with internal consistency coefficients typically exceeding 0.80 for the total scale and acceptable validity across diverse populations and cultural contexts, making it a standard tool in aggression research.

2.2.2. Emotion Suppression

Emotion suppression was measured using the Emotion Regulation Questionnaire (ERQ) developed by Gross and John in 2003, specifically utilizing the Suppression subscale. The ERQ is a 10-item instrument designed to assess individual differences in habitual use of two emotion regulation strategies: Cognitive Reappraisal and Expressive Suppression. The Suppression subscale includes 4 items that measure the tendency to inhibit the outward signs of internal emotional states. Responses are given on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). Higher scores reflect greater use of emotion suppression as a regulatory strategy. The ERQ has demonstrated high internal consistency ($\alpha \approx 0.73$ for the suppression subscale), test–retest reliability, and strong construct and convergent validity in multiple studies, making it a robust measure for emotion regulation patterns.

2.2.3. Frustration Tolerance

Frustration tolerance was evaluated using the Frustration Discomfort Scale (FDS) developed by Harrington in 2005. This 28-item self-report questionnaire assesses individuals' tolerance of frustration through four subscales: Emotional Intolerance, Discomfort Intolerance, Achievement Frustration, and Entitlement. Each item is rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating lower frustration tolerance (i.e., higher frustration discomfort). The FDS has been shown to possess good internal reliability (with Cronbach's alpha coefficients typically above 0.80 for the total scale and its subscales), and its factorial structure, as well as convergent and discriminant validity, have been validated in various populations. It is considered a comprehensive and reliable tool for assessing frustration tolerance in young adult samples.

2.3. Data Analysis

Data were analyzed using IBM SPSS version 27 and AMOS version 21. Initially, descriptive statistics including means, standard deviations, frequencies, and percentages were calculated to summarize participant demographics and variable distributions. Pearson correlation coefficients were computed to evaluate the bivariate relationships between aggressive behavior (dependent variable) and the two independent variables: emotion suppression and frustration tolerance. Following this, Structural Equation Modeling (SEM) was conducted in AMOS-21 to test the hypothesized mediating role of frustration tolerance in the relationship between emotion suppression and aggressive behavior. Model fit was assessed using multiple indices including Chi-square (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR).

3. Findings and Results

The final sample consisted of 400 participants, including 213 females (53.25%) and 187 males (46.75%), with a mean age of 24.36 years (SD = 3.84). Regarding educational attainment, 172 participants (43.00%) held undergraduate degrees, 148 (37.00%) were currently enrolled in graduate programs, and 80 (20.00%) had completed postgraduate education. In terms of employment status, 158 participants (39.50%) were employed full-time, 127 (31.75%) part-time, and 115 (28.75%) reported being unemployed or full-time students. Ethnic distribution showed that 284 participants (71.00%) identified as Georgian, 76 (19.00%) as Armenian, and 40 (10.00%) as other ethnic minorities. This diversity in demographics enhanced the representativeness of the sample for the Georgian young adult population.

Table 1

Descriptive Statistics for Study Variables (N = 400)

Variable	Mean (M)	Standard Deviation (SD)
Emotion Suppression	18.62	4.37
Frustration Tolerance	71.44	9.86
Aggressive Behavior	82.57	11.29

The descriptive statistics indicate that participants reported a moderate level of emotion suppression (M = 18.62, SD = 4.37) and frustration tolerance (M = 71.44, SD = 9.86), as well as relatively elevated levels of aggressive behavior (M = 82.57, SD = 11.29). These mean values suggest variability within the sample across the psychological constructs under study (Table 1).

Prior to conducting inferential analyses, key statistical assumptions were tested and confirmed. Normality of distributions was evaluated using skewness and kurtosis indices, with all variables falling within the acceptable range of −1.23 to +1.46 for skewness and −0.87 to +1.65 for kurtosis. The assumption of linearity was assessed via scatterplots, which revealed linear relationships between emotion suppression, frustration tolerance, and aggressive behavior. Multicollinearity diagnostics indicated acceptable tolerance values (ranging from 0.68 to 0.82) and Variance Inflation Factors (VIFs) below the critical threshold of 5 (ranging from 1.21 to 1.47). Homoscedasticity was confirmed through inspection of residual plots, and no significant outliers were identified based on Mahalanobis distance (all values below the critical χ^2 value of 16.27, p < .001, df = 3). These results confirmed that the data met the assumptions necessary for Pearson correlation and SEM analysis.

Table 2

Pearson Correlations Among Emotion Suppression, Frustration Tolerance, and Aggressive Behavior

Variables	1. Emotion Suppression	2. Frustration Tolerance	3. Aggressive Behavior
1. Emotion Suppression	—	−.43** (p < .001)	.48** (p < .001)
2. Frustration Tolerance		—	−.52** (p < .001)
3. Aggressive Behavior			—

The correlation analysis showed that emotion suppression was significantly and negatively correlated with frustration tolerance (r = −.43, p < .001), and positively correlated with aggressive behavior (r = .48, p < .001). Frustration tolerance was also significantly and negatively correlated with aggressive behavior (r = −.52, p < .001). These results support the hypothesized associations among the variables and justify further path analysis via SEM (Table 2).

Table 3

Structural Equation Model Fit Indices

Fit Index	Value	Recommended Threshold
Chi-Square (χ^2)	106.45	—
Degrees of Freedom (df)	48	—
χ^2/df	2.22	< 3.00
GFI	0.95	≥ 0.90
AGFI	0.91	≥ 0.90
CFI	0.96	≥ 0.95
TLI	0.94	≥ 0.90
RMSEA	0.056	< 0.08

The model demonstrated an acceptable to good fit based on multiple indices. The chi-square/degrees of freedom ratio was 2.22, which is within the recommended range. Goodness-of-fit indices including GFI (0.95), AGFI (0.91), CFI (0.96), and TLI (0.94) met or exceeded conventional thresholds. The RMSEA value was 0.056, indicating close fit to the data. These results suggest that the structural model adequately captures the relationships among the variables (Table 3).

Table 4

Standardized Path Coefficients for Total, Direct, and Indirect Effects (N = 400)

Path	B	S.E	Beta	p
Emotion Suppression → Frustration Tolerance	−0.56	0.07	−0.43	<.001
Frustration Tolerance → Aggressive Behavior	−0.63	0.06	−0.48	<.001
Emotion Suppression → Aggressive Behavior	0.38	0.08	0.29	<.001
Emotion Suppression → Aggression (Indirect via FT)	0.35	0.05	0.21	<.001
Emotion Suppression → Aggression (Total Effect)	0.73	0.07	0.50	<.001

The SEM results revealed that emotion suppression had a significant negative direct effect on frustration tolerance (B = −0.56, β = −0.43, p < .001), and frustration tolerance had a significant negative direct effect on aggressive behavior (B = −0.63, β = −0.48, p < .001). Emotion suppression also had a direct positive effect on aggressive behavior (B = 0.38, β = 0.29, p < .001). The indirect effect of emotion suppression on aggression through frustration tolerance was significant (B = 0.35, β = 0.21, p < .001), indicating partial mediation. The total effect (direct + indirect) of emotion suppression on aggression was substantial (B = 0.73, β = 0.50, p < .001), affirming the robustness of the mediation model (Table 4).

Figure 1

Model with Beta Coefficients

Structural Equation Model: Standardized Path Coefficients (β Values)
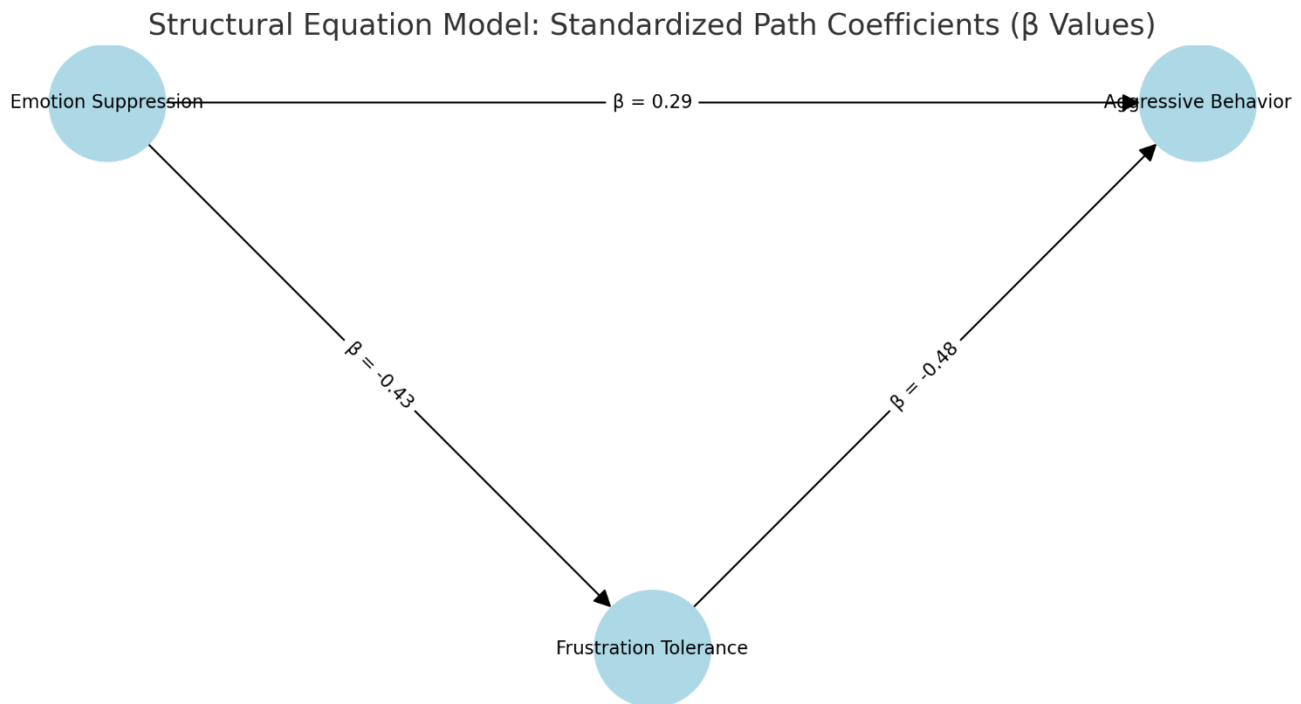
4.   Discussion and Conclusion

The present study aimed to examine the mediating role of frustration tolerance in the relationship between emotion suppression and aggressive behavior among young adults. The findings confirmed significant associations among all three variables. Emotion suppression positively predicted aggressive behavior, frustration tolerance negatively predicted aggression, and frustration tolerance partially mediated the relationship between suppression and aggression. These results contribute to the growing body of literature on emotional regulation and behavioral outcomes, highlighting the importance of understanding how emotional suppression can indirectly fuel aggression through diminished capacity to tolerate frustration.

The finding that emotion suppression is a significant predictor of aggressive behavior aligns with prior research indicating that suppressive regulation strategies are maladaptive and counterproductive in the long term (Zeigler-Hill & Shackelford, 2020). Suppression prevents individuals from expressing and processing their emotions, thereby increasing internal tension that may erupt in the form of reactive aggression when externalized. This mechanism is supported by experimental work suggesting that suppressed emotional content often returns with amplified intensity

during stressful encounters (DiBlasi et al., 2024). The current study extends this understanding by empirically demonstrating that individuals who habitually suppress emotions are more likely to engage in aggression, a finding that resonates with developmental research linking early emotion suppression to later behavioral dysregulation (Kwon & Lee, 2025).

The mediating role of frustration tolerance adds a critical layer to this relationship. Participants who reported higher levels of emotion suppression also showed lower frustration tolerance, which in turn was associated with higher aggressive tendencies. This is consistent with theoretical models that define frustration as a negative emotional reaction to goal obstruction, particularly in individuals who lack coping resources (Ivanov & Perevozkina, 2022). When emotional energy is suppressed and left unresolved, even minor frustrations can provoke disproportionate reactions. Studies have shown that frustration, especially in emotionally rigid individuals, intensifies the risk of both verbal and physical aggression (Toxanbayeva et al., 2024).

This model is further supported by educational and clinical research. For instance, students with low frustration tolerance often exhibit reactive aggression in response to academic or social stressors (Nordman & Adcock, 2022).

Similarly, youth athletes with poor frustration management have been shown to react impulsively and aggressively during competitive events (Rodriguez, 2020). These findings are congruent with the present results, which suggest that frustration tolerance is a crucial skill that modulates how emotional distress translates into aggression. Moreover, the significant indirect effect of emotion suppression on aggression via frustration tolerance highlights the need to view aggression not as a spontaneous reaction, but as a symptom of deeper emotional dysregulation.

The classic frustration–aggression hypothesis offers a foundational explanation for this pattern. When individuals face obstacles to their goals, frustration builds, and in the absence of effective coping strategies, aggression often follows (Breuer et al., 2015). This study confirms that low frustration tolerance serves as the psychological bridge between internal emotional tension and aggressive external behavior. The link has been observed in clinical populations as well; for example, frustration-induced anger was found to significantly correlate with aggressive responses among women with Borderline Personality Disorder (Bertsch et al., 2021). These parallels suggest that frustration is not only a situational trigger but also a trait-like vulnerability that mediates behavioral outcomes across different populations.

Findings from institutional settings also align with the present model. Incarcerated individuals who report high levels of emotional suppression and low frustration tolerance are more prone to aggressive incidents within the prison environment (Batic, 2022). Popa's work on reintegration programs confirmed that teaching prisoners to manage frustration significantly reduced aggressive tendencies post-release (Popa, 2024). In academic environments, suppressed students show more disciplinary issues and peer conflicts, reinforcing the conclusion that suppression and poor frustration tolerance are risk factors for aggression across contexts (Sugian et al., 2021).

Moreover, the differentiation between reactive and proactive aggression is worth noting. The current study likely captures a pattern of reactive aggression, which is typically impulsive and emotionally charged (Ling et al., 2017). This form of aggression is strongly tied to internal processes such as frustration and suppression. Adolescents experiencing prejudice and internal frustration are particularly vulnerable to such reactive behaviors (Sriwahyuningsih et al., 2016). Thus, the findings not only support the general aggression model but also refine it by emphasizing the specific emotional and cognitive vulnerabilities that predispose individuals to aggression.

In line with biopsychosocial frameworks, genetic and familial influences are also relevant. Polygenic vulnerability combined with poor parent–child relationships has been shown to predict higher aggression, particularly when frustration is left unaddressed (Zhang et al., 2023). Similar developmental trajectories are observed in children whose basic psychological needs are consistently frustrated by controlling parenting styles, leading them to adopt suppression and impulsive aggression as default responses (Kwon & Lee, 2025). These developmental insights align with the present findings, underscoring the need to intervene early in the emotional learning process.

There is also evidence that suppression and low frustration tolerance may lead not only to externalizing behaviors but also to internalized psychological risks. Adolescents with poor frustration tolerance have shown increased levels of suicidal ideation and depressive symptoms (Cornejo-Babida, 2020). Thus, the consequences of poor emotional processing may be dual-pathway—manifesting outwardly as aggression or inwardly as emotional distress. The present study, while focused on aggression, supports the broader notion that frustration tolerance is a core regulatory capacity linked to diverse outcomes.

The relevance of these findings also extends to high school and college student populations, where academic stress, peer conflict, and emerging autonomy often coincide with underdeveloped emotional regulation skills. Aggression in these settings may not be merely behavioral mischief but a symptom of accumulated frustration and unexpressed emotional strain (Abdullah et al., 2020). Cultural norms may further complicate this, as emotional suppression is often socially reinforced in collectivist societies or among male subpopulations, exacerbating the suppression–aggression link (Gurtovaya, 2020).

Finally, recent findings from studies on online behavior suggest that frustration and emotional suppression can influence digital aggression as well. Adolescents with limited coping resources and high frustration were more aggressive in virtual gaming environments (Nugroho & Reza, 2022). This suggests that the interplay between suppression, frustration, and aggression transcends physical environments and carries over into digital domains.

5. Limitations & Suggestions

Despite the robustness of the findings, the present study has several limitations that should be acknowledged. First, the use of self-report questionnaires introduces the potential for social desirability bias, particularly in assessing behaviors like aggression and emotional suppression. Second, the cross-sectional design prevents causal inference, making it impossible to determine the temporal directionality between variables. Third, the study sample, while diverse within the Georgian young adult population, may not be generalizable to other cultural or age groups. Additionally, latent variables such as impulsivity, coping strategies, or neurobiological predispositions were not controlled for, which may confound the observed relationships. Finally, the reliance on standard psychometric tools, though validated, may not fully capture the contextual nuances of frustration and aggression in specific cultural or interpersonal contexts.

Future studies should adopt longitudinal designs to examine how suppression and frustration tolerance evolve over time and how they interact to influence the development of aggression. Exploring the mediating and moderating roles of additional variables—such as cognitive distortions, self-efficacy, trauma history, and environmental stressors—could offer a more nuanced understanding of the aggression pathway. Including qualitative components may also enrich the interpretive depth of emotional experiences underlying aggression. Future research should consider cross-cultural comparisons to examine the extent to which emotional suppression and frustration tolerance are shaped by cultural norms and expectations. Expanding the sample to include clinical and forensic populations could also provide further validation of the mediation model identified in this study.

Based on the findings, it is recommended that educational and mental health programs targeting young adults integrate training in emotional expression and frustration tolerance. Interventions such as cognitive-behavioral therapy, dialectical behavior therapy, or mindfulness-based emotional regulation strategies could be tailored to reduce suppression tendencies and enhance coping skills. In academic and occupational settings, policies that encourage open emotional dialogue and stress-reduction practices may help reduce the buildup of frustration that leads to aggression. Moreover, early intervention programs in schools that focus on emotional literacy and impulse control can foster resilience and reduce long-term behavioral risks. Practitioners working with at-risk youth should assess for suppression and frustration intolerance as early indicators of

potential aggression, thereby enabling preventative strategies before maladaptive behaviors escalate.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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